

Prospectus

ARCADIA BIOSCIENCES, INC.

**4,958,631
Common Stock**

Pursuant to this prospectus, the selling stockholders identified herein are offering on a resale basis an aggregate of 4,958,631 shares of our common stock that are issuable upon the exercise of outstanding preferred investment options. These preferred investment options were issued in connection with a private placement we completed on August 16, 2022. We will not receive any of the proceeds from the sale by the selling stockholders of the common stock. Upon any exercise of the preferred investment options by payment of cash, however, we will receive the exercise price of the preferred investment options.

The selling stockholders may sell or otherwise dispose of the common stock covered by this prospectus in a number of different ways and at varying prices. We provide more information about how the selling stockholders may sell or otherwise dispose of the common stock covered by this prospectus in the section entitled “Plan of Distribution” on page 9. Discounts, concessions, commissions and similar selling expenses attributable to the sale of common stock covered by this prospectus will be borne by the selling stockholders. We will pay all expenses (other than discounts, concessions, commissions and similar selling expenses) relating to the registration of the common stock with the Securities and Exchange Commission.

Our common stock is listed on the Nasdaq Capital Market under the symbol “RKDA.” On October 4, 2022, the last reported sale price of our common stock on the Nasdaq Capital Market was \$0.557 per share.

INVESTING IN OUR SECURITIES INVOLVES RISKS. YOU SHOULD REVIEW CAREFULLY THE RISKS AND UNCERTAINTIES DESCRIBED UNDER THE HEADING “RISK FACTORS” CONTAINED ON PAGE 1 HEREIN AND IN OUR ANNUAL REPORT ON FORM 10-K FOR THE YEAR ENDED DECEMBER 31, 2021, AS WELL AS OUR SUBSEQUENTLY FILED PERIODIC AND CURRENT REPORTS, WHICH WE FILE WITH THE SECURITIES AND EXCHANGE COMMISSION AND ARE INCORPORATED BY REFERENCE INTO THIS PROSPECTUS. YOU SHOULD READ THE ENTIRE PROSPECTUS CAREFULLY BEFORE YOU MAKE YOUR INVESTMENT DECISION.

NEITHER THE SECURITIES AND EXCHANGE COMMISSION NOR ANY STATE SECURITIES COMMISSION HAS APPROVED OR DISAPPROVED THESE SECURITIES OR DETERMINED IF THIS PROSPECTUS IS TRUTHFUL OR COMPLETE. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.

The date of this prospectus is October 5, 2022.

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ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement on Form S-1 that we filed with the SEC using a continuous offering process.

You should read this prospectus and the information and documents incorporated by reference carefully. Such documents contain important information you should consider when making your investment decision. See “Where You Can Find Additional Information” and “Incorporation of Information by Reference” in this prospectus.

You should rely only on the information provided in this prospectus or documents incorporated by reference into this prospectus. We have not authorized anyone to provide you with different information. This prospectus covers offers and sales of our common stock only in jurisdictions in which such offers and sales are permitted. The information contained in this prospectus is accurate only as of the date of this prospectus, regardless of the time of delivery of this prospectus or of any sale of our common stock. You should not assume that the information contained in this prospectus is accurate as of any date other than the date on the front cover of this prospectus, or that the information contained in any document incorporated by reference is accurate as of any date other than the date of the document incorporated by reference, regardless of the time of delivery of this prospectus or any sale of a security.

In this prospectus, we refer to Arcadia Biosciences, Inc. as “we,” “us,” “our,” the “Company” or “RKDA.” You should rely only on the information we have provided or incorporated by reference in this prospectus, any applicable prospectus supplement and any related free writing prospectus. We have not authorized anyone to provide you with different information. No dealer, salesperson or other person is authorized to give any information or to represent anything not contained in this prospectus, any applicable prospectus supplement or any related free writing prospectus.

ABOUT ARCADIA BIOSCIENCES, INC.

We are a producer and marketer of innovative, plant-based health and wellness products. Our history as a leader in science-based approaches to developing high value crop improvements, primarily in wheat, designed to enhance farm economics by improving the performance of crops in the field, as well as their value as food ingredients, health and wellness products, and their viability for industrial applications, has laid the foundation for our path forward. We have used non-genetically modified advanced breeding techniques to develop these proprietary innovations which we are now commercializing through the sales of seed and grain, food ingredients and products, hemp extracts, trait licensing and royalty agreements. Our food, beverage and body care products include GoodWheat™, Zola® coconut water, ProVault™ topical pain relief and SoulSpring™ bath and body care.

We were founded in 2002, and our principal executive offices are located at 202 Cousteau Place, Suite 105, Davis, CA 95618. Our telephone number is (530) 756-7077. Our website is located at www.arcadiabio.com. Information contained on, or that can be accessed through, our website is not part of this prospectus.

RISK FACTORS

An investment in our common stock involves risks. Prior to making a decision about investing in our common stock, you should consider carefully the risks together with all of the other information contained or incorporated by reference in this prospectus, including any risks in the section entitled “Risk Factors” contained in any supplements to this prospectus and in our Annual Report on Form 10-K for the fiscal year ended December 31, 2021, and in our subsequent filings with the SEC. Each of the referenced risks and uncertainties could adversely affect our business, operating results and financial condition, as well as adversely affect the value of an investment in our securities. Additional risks not known to us or that we believe are immaterial may also adversely affect our business, operating results and financial condition and the value of an investment in our securities.

CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

Some of the statements in this prospectus and in any prospectus supplement we may file constitute “forward-looking statements” within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. These statements relate to future events concerning our business and to our future revenues, operating results and financial condition. In some cases, you can identify forward-looking statements by terminology such as “may,” “will,” “could,” “would,” “should,” “expect,” “plan,” “anticipate,” “intend,” “believe,” “estimate,” “forecast,” “predict,” “propose,” “potential” or “continue,” or the negative of those terms or other comparable terminology.

Any forward-looking statements contained in this prospectus or any prospectus supplement are only estimates or predictions of future events based on information currently available to our management and management’s current beliefs about the potential outcome of future events. Whether these future events will occur as management anticipates, whether we will achieve our business objectives, and whether our revenues, operating results or financial condition will improve in future periods are subject to numerous risks. There are a number of important factors that could cause actual results to differ materially from the results anticipated by these forward-looking statements. These important factors include those that we discuss under the heading “Risk Factors” and in other sections of our Annual Report on Form 10-K for the year ended December 31, 2021, as filed with the Securities and Exchange Commission (SEC), as well as in our other reports filed from time to time with the SEC that are incorporated by reference into this prospectus. You should read these factors and the other cautionary statements made in this prospectus and in the documents we incorporate by reference into this prospectus as being applicable to all related forward-looking statements wherever they appear in this prospectus or the documents we incorporate by reference into this prospectus. If one or more of these factors materialize, or if any underlying assumptions prove incorrect, our actual results, performance or achievements may vary materially from any future results, performance or achievements expressed or implied by these forward-looking statements. We undertake no obligation to publicly update any forward-looking statements, whether as a result of new information, future events or otherwise, except as required by law.

USE OF PROCEEDS

We are registering shares of our common stock pursuant to registration rights granted to the selling stockholders. We will not receive any of the proceeds from any sale or other disposition of the common stock covered by this prospectus. All proceeds from the sale of the common stock will be paid directly to the selling stockholders. We will receive proceeds upon the cash exercise of the Investment Options for which the underlying Investment Option Shares are being registered hereunder. Assuming full cash exercise of the Investment Options, we would receive proceeds of approximately \$4.72 million. We currently intend to use the cash proceeds from any Warrant exercise for working capital and general corporate purposes.

SELLING STOCKHOLDERS

Registered Offering and Private Placement

On August 12, 2022, we entered into a securities purchase agreement with an institutional investor relating to (i) the registered offering and sale (“RD Offering”) of 2,450,000 shares of our common stock at a purchase price of \$1.05876 per share and pre-funded warrants (“Pre-Funded Warrants”) to purchase 2,272,506 shares of common stock at a purchase price of \$1.05866 per share of common stock underlying each such warrant (“RD Offering”) and (ii) the concurrent private placement (“Private Placement”) of preferred investment options (“Private Placement Investment Options”) exercisable for a total of 4,722,506 shares of our common stock (“Investor Option Shares”) with an exercise price of \$0.93376 per share. Subject to certain ownership limitations, the Private Placement Investment Options are exercisable upon issuance and will expire on the 5-year anniversary of the date of issuance. The RD Offering and the Private Placement closed on August 16, 2022.

H.C. Wainwright & Co., LLC, or Wainwright, served as the sole placement agent for the RD Offering and the Private Placement. Pursuant to an engagement letter, dated August 12, 2022, we issued to designees of Wainwright preferred investment options (“Wainwright Investment Options”, and together with the Private Placement Investment Options, the “Investment Options”), for the purchase of a total of 236,125 shares of our common stock (“Wainwright Investment Option Shares”, and together with the Investor Option Shares, the “Investment Option Shares”) at an exercise price per share of \$1.3235. The Wainwright Investment Options are exercisable for five years from the date of issuance.

Relationship with the Selling Stockholders

Armistice Capital Master Fund, Ltd. (“Armistice”) was an investor in our registered direct offering and concurrent private placement of warrants that closed on September 10, 2019 (the “September 2019 Offering”), pursuant to which we issued and sold in a registered direct offering an aggregate of 1,318,828 shares of our common stock at an offering price of \$7.5825 per share. In a concurrent private placement, we issued to the investors, for each share of common stock purchased in the offering, a warrant to purchase one share of common stock. These warrants have an exercise price of \$7.52 per share and are exercisable to purchase an aggregate of up to 659,414 shares of our common stock.

Armistice was an investor in our registered direct offering and concurrent private placement of warrants that closed on December 18, 2020 (the “December 2020 Offering”), pursuant to which we issued and sold in a registered direct offering an aggregate of 2,618,658 shares of our common stock at an offering price of \$3.055 per share. In a concurrent private placement, we issued to the investors, for each share of common stock purchased in the offering, a warrant to purchase one share of common stock. These warrants have an exercise price of \$3.00 per share and are exercisable to purchase an aggregate of up to 2,618,658 shares of our common stock.

Each of Michael Vasinkevich, Noam Rubinstein, Craig Schwabe and Charles Worthman are affiliated with Wainwright. Wainwright served as our placement agent in several offerings of our securities within the past three years, including the September 2019 Offering, offerings of our securities occurring in May 2020 and July 2020 (“May and July 2020 Offerings”), the December 2020 Offering, the RD Offering and the Private Placement, for which it received customary cash and warrant compensation. In connection with all of the offerings Wainwright served as a placement agent, each of Michael Vasinkevich, Noam Rubinstein, and Charles Worthman, as a designee of Wainwright, has received warrants or preferred investment options to purchase shares of our common stock. In connection with the May and July 2020 Offerings, the December 2020 Offering, the RD Offering and the Private Placement, Craig Schwabe, as a designee of Wainwright, received warrants or preferred investment options to purchase shares of our common stock.

Except with respect to the foregoing, none of the selling stockholders has, or within the past three years has had, any position, office or material relationship with us.

Information About Selling Stockholder Offering

The shares of common stock being offered by the selling stockholders are those issuable to the selling stockholders, upon the exercise of the Investment Options. We are registering the shares of common stock in order to permit the selling stockholders to offer the shares for resale from time to time.

The table below lists the selling stockholders and other information regarding the ownership of the shares of common stock by each of the selling stockholders. The second column lists the number of shares of common stock owned by each selling stockholder, based on its ownership of the shares of common stock and securities convertible or exercisable into shares of common stock, as of September 20, 2022, assuming exercise of the securities exercisable for shares of common stock held by the selling stockholders on that date, without regard to any limitations on exercises.

The third column lists the shares of common stock being offered by this prospectus by the selling stockholders.

This prospectus covers the resale of the maximum number of Investment Option Shares issuable upon exercise of the Investment Options. The table below assumes that the outstanding Investment Options and other warrants to purchase shares of common stock were exercised in full as of the trading day immediately preceding the date this registration statement was initially filed with the SEC, each as of the trading day immediately preceding the applicable date of determination, without regard to any limitations on the exercise of the Investment Options and other warrants. The fourth column assumes the sale of all of the shares offered by the selling stockholders pursuant to this prospectus. The fifth column lists the percentages of shares of common stock owned by the selling stockholders after this offering, without regard to any limitations on exercises.

Under the terms of the Investment Options, a selling stockholder may not exercise the Investment Options to the extent such exercise would cause such selling stockholder, together with its affiliates and attribution parties, to beneficially own a number of shares of common stock which would exceed 4.99% of our then outstanding common stock following such exercise, excluding for purposes of such determination shares of common stock issuable upon the exercise of the Investment Options, which have not been exercised. The number of shares in the second and fourth columns and the percent ownership in the fifth column do not reflect this limitation. The selling stockholders may sell all, some or none of their shares in this offering. See “Plan of Distribution.” The total number of outstanding shares of common stock as of September 20, 2022 was 24,642,960.

Name of Selling Stockholder	Number of shares of Common Stock Owned Before the Offering	Shares to be Sold in this Offering	Shares Beneficially Owned After Offering	
			Number	Percentage
Armistice Capital Master Fund Ltd. (1)	9,747,997	4,722,506	5,025,491	15.37%
Michael Vasinkevich (2)	650,721	151,415	499,306	1.98%
Noam Rubinstein (3)	342,613	74,380	268,233	1.08%
Craig Schwabe (4)	29,112	7,969	21,143	*
Charles Worthman (5)	10,875	2,361	8,514	*

* Represents beneficial ownership of less than one percent.

- (1) The number of shares owned before the offering include the following: (i) 1,702,672 shares of common stock, (ii) 2,272,506 shares of common stock underlying the Pre-Funded Warrants, which Pre-Funded Warrants are subject to beneficial ownership limitations that prohibit the selling stockholder from exercising any portion of the pre-funded warrants that would result in the selling stockholder owning a percentage of our outstanding common stock exceeding 9.99% after giving effect to the issuance of the common stock in connection with the selling stockholder’s exercise, (iii) 4,722,506 shares of common stock underlying the Private Placement Investment Options, and (iv) 654,665 shares of common stock underlying common stock purchase warrants acquired in the December 2020 Offering and 395,648 shares of common stock underlying common stock purchase warrants acquired in the September 2019 Offering, which warrants are subject to beneficial ownership limitations that prohibit the selling stockholder from exercising any portion of the warrants that would result in the selling stockholder owning a percentage of our outstanding common stock exceeding 4.99% after giving effect to the issuance of the common stock in connection with the selling stockholder’s exercise. The shares of Common Stock reported herein are held by Armistice Capital Master Fund Ltd., a Cayman Islands exempted company (the “Master Fund”) and may be deemed to be indirectly beneficially owned by (i) Armistice Capital, LLC (“Armistice Capital”), as the investment manager of the Master Fund; and (ii) Steven Boyd, as the Managing Member of Armistice Capital. Armistice Capital and Steven Boyd disclaim beneficial ownership of the securities except to the extent of their respective pecuniary interests therein.
- (2) Shares owned before the offering include 650,721 shares of common stock issuable upon exercise of warrants and Investment Options, including 151,415 shares underlying the Investment Options that are being offered pursuant to this prospectus.
- (3) Shares owned before the offering includes 342,613 shares of common stock issuable upon exercise of warrants Investment Options, including 74,380 shares underlying the Investment Options that are being offered pursuant to this prospectus.
- (4) Shares owned before the offering includes 29,112 shares of common stock issuable upon exercise of warrants and Investment Options, including 7,969 shares underlying the Investment Options that are being offered pursuant to this prospectus.

- (5) Shares owned before the offering includes 10,875 shares of common stock issuable upon exercise of warrants and Investment Options, including 2,361 shares underlying the Investment Options that are being offered pursuant to this prospectus.

DESCRIPTION OF OUR CAPITAL STOCK

The selling stockholders may, from time to time, sell, transfer, or otherwise dispose of any or all of their shares of common stock or interests in shares of common stock on any stock exchange, market, or trading facility on which the shares are traded or in private transactions at fixed prices, at prevailing market prices at the time of sale, at prices related to the prevailing market price, at varying prices determined at the time of sale, or at negotiated prices. This prospectus provides you with a general description of the common stock the selling stockholders may offer.

The description below of our capital stock and provisions of our articles of incorporation and bylaws are summaries and are qualified by reference to the articles of incorporation and the bylaws. These documents are filed as exhibits to the registration statement of which this prospectus is a part.

Our authorized capital stock consists of 150,000,000 shares of common stock, \$0.001 par value, and 20,000,000 shares of preferred stock, \$0.001 par value. As of September 20, 2022, there were no outstanding shares of preferred stock and 24,642,960 outstanding shares of common stock.

Common Stock

Holders of our common stock are entitled to one vote per share for each share held of record on all matters submitted to a vote of stockholders and do not have cumulative voting rights. Our certificate of incorporation does not provide for cumulative voting. Subject to preferences that may be applicable to any outstanding preferred stock, the holders of our common stock are entitled to receive ratably such dividends, if any, as may be declared by our board of directors out of legally available funds. Upon liquidation, dissolution or winding-up, the holders of our common stock are entitled to share ratably in all of our assets which are legally available for distribution, after payment of or provision for all liabilities and the liquidation preference of any outstanding preferred stock. The holders of our common stock have no preemptive, subscription, redemption or conversion rights. Our common stock is currently listed on the Nasdaq Capital Market under the symbol "RKDA."

Preferred Stock

The board of directors has the authority, without further action by the stockholders, to issue up to 20,000,000 shares of preferred stock, \$0.001 par value per share, in one or more series. The board of directors will also have the authority to designate the rights, preferences, privileges and restrictions of each such series, including dividend rights, dividend rates, conversion rights, voting rights, terms of redemption, redemption prices, liquidation preferences, and the number of shares constituting any series.

The issuance of preferred stock may have the effect of delaying, deferring or preventing a change in control of the company without further action by the stockholders. The issuance of preferred stock with voting and conversion rights may also adversely affect the voting power of the holders of common stock. In certain circumstances, an issuance of preferred stock could have the effect of decreasing the market price of the common stock.

Anti-Takeover Effects of Provisions of our Amended and Restated Certificate of Incorporation and Amended and Restated Bylaws

Our amended and restated certificate of incorporation and our amended and restated bylaws contain certain provisions that could have the effect of delaying, deterring or preventing another party from acquiring control of us. These provisions and certain provisions of Delaware law, which are summarized below, are expected to discourage coercive takeover practices and inadequate takeover bids. These provisions are also designed, in part, to encourage persons seeking to acquire control of us to negotiate first with our board of directors. We believe that the benefits of increased protection of our potential ability to negotiate more favorable terms with an unfriendly or unsolicited acquirer outweigh the disadvantages of discouraging a proposal to acquire us.

Undesignated Preferred Stock

As discussed above, our board of directors will have the ability to issue preferred stock with voting or other rights or preferences that could impede the success of any attempt to change control of us. These and other provisions may have the effect of deterring hostile takeovers or delaying changes in control or management of our company.

Limits on Ability of Stockholders to Act by Written Consent or Call a Special Meeting

Our amended and restated certificate of incorporation provides that our stockholders may not act by written consent, which may lengthen the amount of time required to take stockholder actions. As a result, a holder controlling a majority of our capital stock would not be able to amend our bylaws or remove directors without holding a meeting of our stockholders called in accordance with our bylaws.

In addition, our amended and restated bylaws provides that special meetings of the stockholders may be called only by the majority of our board of directors. Stockholders may not call a special meeting, which may delay the ability of our stockholders to force consideration of a proposal or for holders controlling a majority of our capital stock to take any action, including the removal of directors.

Requirements for Advance Notification of Stockholder Nominations and Proposals

Our amended and restated bylaws require advance notice procedures with respect to stockholder proposals and the nomination of candidates for election as directors, other than nominations made by or at the direction of our board of directors or a committee of our board of directors. These provisions may have the effect of precluding the conduct of certain business at a meeting if the proper procedures are not followed. These provisions may also discourage or deter a potential acquirer from conducting a solicitation of proxies to elect the acquirer's own slate of directors or otherwise attempting to obtain control of our company.

Board Classification

Our board of directors is divided into three classes, one class of which is elected each year by our stockholders. The directors in each class will serve three-year terms. A third party may be discouraged from making a tender offer or otherwise attempting to obtain control of us as it is more difficult and time consuming for stockholders to replace a majority of the directors on a classified board.

No Cumulative Voting

Our amended and restated certificate of incorporation and amended and restated bylaws does not permit cumulative voting in the election of directors. Cumulative voting allows a stockholder to vote a portion or all of its shares for one or more candidates for seats on the board of directors. Without cumulative voting, a minority stockholder may not be able to gain as many seats on our board of directors as the stockholder would be able to gain if cumulative voting were permitted. The absence of cumulative voting makes it more difficult for a minority stockholder to gain a seat on our board of directors to influence our board's decision regarding a takeover.

Amendment of Charter and Bylaws Provisions

The amendment of the above provisions of our amended and restated certificate of incorporation requires approval by holders of at least two-thirds of our outstanding capital stock entitled to vote generally in the election of directors. The amendment of our bylaws requires approval by the holders of at least two-thirds of our outstanding capital stock entitled to vote generally in the election of directors.

Delaware Anti-Takeover Statute

We are subject to the provisions of Section 203 of the DGCL regulating corporate takeovers. In general, Section 203 prohibits a publicly-held Delaware corporation from engaging, under certain circumstances, in a business combination with an interested stockholder for a period of three years following the date the person became an interested stockholder unless:

- prior to the date of the transaction, our board of directors approved either the business combination or the transaction which resulted in the stockholder becoming an interested stockholder;
- upon completion of the transaction that resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of the voting stock of the corporation outstanding at the time the transaction commenced, calculated as provided under Section 203; or
- at or subsequent to the date of the transaction, the business combination is approved by our board of directors and authorized at an annual or special meeting of stockholders, and not by written consent, by the affirmative vote of at least two-thirds of the outstanding voting stock which is not owned by the interested stockholder.

Generally, a business combination includes a merger, asset or stock sale, or other transaction resulting in a financial benefit to the interested stockholder. An interested stockholder is a person who, together with affiliates and associates, owns or, within three years prior to the determination of interested stockholder status, did own 15% or more of a corporation's outstanding voting stock. We

expect the existence of this provision to have an anti-takeover effect with respect to transactions our board of directors does not approve in advance. We anticipate that Section 203 may also discourage attempts that might result in a premium over the market price for the shares of common stock held by stockholders.

The provisions of Delaware law and the provisions of our amended and restated certificate of incorporation and amended and restated bylaws, as amended upon the completion of this offering, could have the effect of discouraging others from attempting hostile takeovers and, as a consequence, they might also inhibit temporary fluctuations in the market price of our common stock that often result from actual or rumored hostile takeover attempts. These provisions might also have the effect of preventing changes in our management. It is possible that these provisions could make it more difficult to accomplish transactions that stockholders might otherwise deem to be in their best interests.

Forum Selection

Our amended and restated certificate of incorporation provides that unless we consent in writing to the selection of an alternative forum, the Court of Chancery of the State of Delaware is the sole and exclusive forum for:

- any derivative action or proceeding brought on our behalf;
- any action asserting a breach of fiduciary duty owed by any of our directors, officers or other employees to us or our stockholders;
- any action asserting a claim against us arising pursuant to any provisions of the DGCL, our amended and restated certificate of incorporation or our amended and restated bylaws; or
- any action asserting a claim against us that is governed by the internal affairs doctrine.

These exclusive-forum provisions may limit a stockholder's ability to bring a claim in a judicial forum that it finds favorable for disputes with us or our directors, officers or other employees, which may discourage lawsuits against us and our directors, officers and other employees. Furthermore, the enforceability of similar choice of forum provisions in other companies' charter documents has been challenged in legal proceedings, and it is possible that a court could find these types of provisions to be inapplicable or unenforceable. If a court were to find either exclusive-forum provision in our amended and restated certificate of incorporation to be inapplicable or unenforceable in an action, we may incur additional costs associated with resolving the dispute in other jurisdictions, which could harm our business.

These exclusive-forum provisions are not intended to apply to any causes of action arising under the Securities Act of 1933, as amended ("Securities Act") or the Securities Exchange Act of 1934, as amended ("Exchange Act") or any other claim for which the federal courts have exclusive jurisdiction.

Listing

Our common stock is listed on the Nasdaq Capital Market under the symbol "RKDA".

Transfer Agent and Registrar

The transfer agent and registrar for our common stock is American Stock Transfer & Trust Company.

PLAN OF DISTRIBUTION

The selling stockholders and any of their pledgees, assignees and successors-in-interest may, from time to time, sell any or all of the shares of common stock covered hereby on the Nasdaq Capital Market or any other stock exchange, market or trading facility on which the common stock is traded or in private transactions. These sales may be at fixed or negotiated prices. A selling stockholder may use any one or more of the following methods when selling shares of common stock:

- ordinary brokerage transactions and transactions in which the broker-dealer solicits purchasers;
- block trades in which the broker-dealer will attempt to sell the shares as agent but may position and resell a portion of the block as principal to facilitate the transaction;
- purchases by a broker-dealer as principal and resale by the broker-dealer for its account;
- an exchange distribution in accordance with the rules of the applicable exchange;
- privately negotiated transactions;
- settlement of short sales;
- in transactions through broker-dealers that agree with the selling stockholders to sell a specified number of such shares at a stipulated price per share;
- through the writing or settlement of options or other hedging transactions, whether through an options exchange or otherwise;
- a combination of any such methods of sale; or
- any other method permitted pursuant to applicable law.

The selling stockholders may also sell shares under Rule 144 or any other exemption from registration under the Securities Act if available, rather than under this prospectus.

Broker-dealers engaged by the selling stockholders may arrange for other brokers-dealers to participate in sales. Broker-dealers may receive commissions or discounts from the selling stockholders (or, if any broker-dealer acts as agent for the purchaser of shares, from the purchaser) in amounts to be negotiated, but, except as set forth in a supplement to this Prospectus, in the case of an agency transaction not in excess of a customary brokerage commission in compliance with FINRA Rule 2121; and in the case of a principal transaction a markup or markdown in compliance with FINRA Rule 2121.

In connection with the sale of the shares or interests therein, the selling stockholders may enter into hedging transactions with broker-dealers or other financial institutions, which may in turn engage in short sales of the shares in the course of hedging the positions they assume. The selling stockholders may also sell shares short and deliver these shares to close out their short positions, or loan or pledge the shares to broker-dealers that in turn may sell these shares. The selling stockholders may also enter into option or other transactions with broker-dealers or other financial institutions or create one or more derivative securities which require the delivery to such broker-dealer or other financial institution of shares offered by this prospectus, which shares such broker-dealer or other financial institution may resell pursuant to this prospectus (as supplemented or amended to reflect such transaction).

The selling stockholders and any broker-dealers or agents that are involved in selling the shares may be deemed to be “underwriters” within the meaning of the Securities Act in connection with such sales. In such event, any commissions received by such broker-dealers or agents and any profit on the resale of the shares purchased by them may be deemed to be underwriting commissions or discounts under the Securities Act. Each selling stockholder has informed the Company that it does not have any written or oral agreement or understanding, directly or indirectly, with any person to distribute the shares.

The Company has agreed to indemnify the selling stockholders against certain losses, claims, damages and liabilities, including liabilities under the Securities Act.

We agreed to use commercially reasonable efforts to keep this prospectus effective until the selling stockholders no longer hold any preferred investment options or shares of common stock underlying them that are offered hereunder. The shares of common stock offered hereunder will be sold only through registered or licensed brokers or dealers if required under applicable state securities laws. In addition, in certain states, the common stock covered hereby may not be sold unless they have been registered or qualified for sale in the applicable state or an exemption from the registration or qualification requirement is available and is complied with.

Under applicable rules and regulations under the Exchange Act, any person engaged in the distribution of the shares may not simultaneously engage in market making activities with respect to the common stock for the applicable restricted period, as defined in

Regulation M, prior to the commencement of the distribution. In addition, the selling stockholders will be subject to applicable provisions of the Exchange Act and the rules and regulations thereunder, including Regulation M, which may limit the timing of purchases and sales of the common stock by the selling stockholders or any other person. We will make copies of this prospectus available to the selling stockholders and have informed them of the need to deliver a copy of this prospectus to each purchaser at or prior to the time of the sale (including by compliance with Rule 172 under the Securities Act).

LEGAL MATTERS

Weintraub Tobin Chediak Coleman Grodin Law Corporation will pass upon legal matters in connection with the validity of the common stock offered hereby.

EXPERTS

The financial statements of Arcadia Biosciences, Inc. as of December 31, 2021 and 2020, and for each of the two years in the period ended December 31, 2021, incorporated by reference in this Prospectus, have been audited by Deloitte & Touche LLP, an independent registered public accounting firm, as stated in their report. Such financial statements are incorporated by reference in reliance upon the report of such firm given their authority as experts in accounting and auditing.

The consolidated financial statements of Rever Holdings, LLC for the year ended December 31, 2020, and the related notes for such financial statements have been audited by Armanino LLP, independent certified public accountants, as stated in their report, and are incorporated in this Prospectus by reference to the Company's Current Report on Form 8-K/A filed with the SEC on August 2, 2021. Such financial statements are incorporated by reference in reliance upon the report of such firm given their authority as experts in accounting and auditing.

The financial statements for the Coconut Water Line of LiveZola, LLC for the year ended December 31, 2020, and the related notes for such financial statements have been audited by CohnReznick LLP, independent auditors, as stated in their report, and are incorporated in this Prospectus by reference to the Company's Current Report on Form 8-K/A filed with the SEC on August 2, 2021. Such financial statements are incorporated herein by reference in reliance upon such report given on the authority of such firm as experts in accounting and auditing.

INTERESTS OF NAMED EXPERTS AND COUNSEL

Except as noted below, no expert or counsel named in this prospectus as having prepared or certified any part of this prospectus or having given an opinion upon the validity of the securities being registered or upon other legal matters in connection with the registration or offering of the securities was employed on a contingency basis, or had, or is to receive, in connection with the offering, a substantial interest, direct or indirect, in the registrant or any of its parents or subsidiaries. Nor was any such person connected with the registrant or any of its parents or subsidiaries as a promoter, managing or principal underwriter, voting trustee, director, officer, or employee.

WHERE YOU CAN FIND ADDITIONAL INFORMATION

We are required to file annual, quarterly and special reports, proxy statements and other information with the SEC. Our filings with the SEC are also available to the public at the SEC's Internet web site at <http://www.sec.gov>.

We have filed a registration statement, of which this prospectus is a part, covering the securities offered hereby. As allowed by SEC rules, this prospectus does not include all of the information contained in the registration statement and the included exhibits, financial statements and schedules. You are referred to the registration statement, the included exhibits, financial statements and schedules for further information. This prospectus is qualified in its entirety by such other information.

We are subject to the information and periodic reporting requirements of the Exchange Act, and, in accordance therewith, file periodic reports, proxy statements and other information with the SEC. Such periodic reports, proxy statements and other information are available to the public over the Internet at the website of the SEC referred to above. We maintain a website at <http://www.arcadiabio.com>. The reference to our website address does not constitute incorporation by reference of the information contained on our website, and you should not consider the contents of our website in making an investment decision with respect to our common stock.

INCORPORATION OF INFORMATION BY REFERENCE

The SEC allows us to "incorporate by reference" information that we file with it, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is an important part of this

prospectus. Information in this prospectus supersedes information incorporated by reference that we filed with the SEC prior to the date of this prospectus, while information that we file later with the SEC will automatically update and supersede the information in this prospectus. We also incorporate by reference into this prospectus the documents listed below and any future filings made by us with the SEC (other than Current Reports on Form 8-K or portions thereof furnished under Item 2.02 or Item 7.01 of Form 8-K and exhibits filed on such form that are related to such items and other portions of documents that are furnished, but not filed, pursuant to applicable rules promulgated by the SEC) that are filed by us with the SEC pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act (i) after the date of the initial filing of the registration statement of which this prospectus is a part and prior to effectiveness of the registration statement, and (ii) after the effectiveness of the registration statement but prior to the termination of the offering of the common stock covered by this prospectus:

- Our Annual Report on [Form 10-K](#) for the year ended December 31, 2021, filed with the SEC on March 31, 2022;
- Our Quarterly Reports on Form 10-Q for the quarters ended [March 31, 2022](#) and [June 30, 2022](#), filed with the SEC on May 12, 2022 and August 11, 2022, respectively;
- Our Current Reports on Form 8-K (other than information furnished rather than filed) filed with the SEC on [August 2, 2021](#), [February 7, 2022](#), [March 30, 2022](#), [May 12, 2022](#), [June 7, 2022](#), [August 11, 2022](#), [August 16, 2022](#) and [September 27, 2022](#);
- Our definitive [proxy statement](#) on Schedule 14A for our 2022 Annual Meeting of Stockholders, filed with the SEC on April 19, 2022 (to the extent incorporated by reference into Part III of our Annual Report on Form 10-K for the fiscal year ended December 31, 2021); and
- the description of our common stock contained in our Form 8-A/A filed with the SEC on [May 14, 2015](#), including any amendment or report filed for the purpose of updating such description.

We will provide to each person, including any beneficial owner, to whom a prospectus is delivered, without charge upon written or oral request, a copy of any or all of the documents that are incorporated by reference into this prospectus but not delivered with the prospectus, including exhibits which are specifically incorporated by reference into such documents. You should direct any requests for documents by writing us at Arcadia Biosciences, Inc., 202 Cousteau Place, Suite 105, Davis, CA 95618, Attention: Corporate Secretary, Telephone (530) 756-7077.

You may also access the documents incorporated by reference in this prospectus through our website at <http://www.arcadiabio.com>. Except for the specific incorporated documents listed above, no information available on or through our website shall be deemed to be incorporated in this prospectus or the registration statement of which it forms a part.

Any statement contained herein or in a document incorporated or deemed to be incorporated by reference into this document will be deemed to be modified or superseded for purposes of the document to the extent that a statement contained in this document or any other subsequently filed document that is deemed to be incorporated by reference into this document modifies or supersedes the statement.